

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1. A ~~hair-care device~~ dryer including a main housing, a motor, a motor driven fan, first and second heating elements, a controller, and a thermal sensor; wherein said main housing defines an air-passageway having an air-inlet and an air-outlet, said heating ~~element is~~ elements are disposed intermediate said air-inlet and said air-outlet, said thermal sensor is disposed adjacent said air-outlet and provides temperature information to said controller, said controller includes memory for storing the temperature information and means for comparing the temperature information received from said thermal sensor with pre-stored temperature information, and wherein said controller and said heating elements are arranged to reduce heating power output by a non-dissipative power reduction scheme upon detection of received temperature information indicating a temperature exceeding a pre-determined threshold, said non-dissipative power reduction scheme including selectively turning on and off said heating elements alternately and repeatedly at zero-crossings of an alternating current power supply during a power reduction operation.
2. A ~~device~~ hair dryer of claim 1, wherein said thermal sensor includes a negative temperature coefficient ("NTC") device.

3. ~~A device~~ hair dryer of claim 1, wherein said first and second ~~heaters~~ heating elements are turned on and off ~~according to a plurality of pre-determined patterns, said plurality of pre-determined patterns corresponding to a plurality of pre-determined discrete heating power and fan speed settings at zero-crossings of said alternating current power supply so that said first and second heating elements are actuated respectively at positive and negative portions of said alternating current power supply.~~
4. ~~A device~~ hair dryer of claim 1, further including a visual display means on said main housing for indicating the instantaneous operating conditions of said ~~device~~ hair dryer.
5. ~~A device~~ hair dryer of claim 4, wherein said display means includes graphical representations showing operating conditions of said ~~device~~ hair dryer, said operating conditions including the fan speed level and the operation status of a built-in ionizer.
6. ~~A device~~ hair dryer of claim 4, wherein said visual display means includes a numerical display showing the instantaneous power level of said heater.
7. ~~A device~~ hair dryer of claim 6, wherein said visual display means further includes graphical representations showing operating conditions of said ~~device~~ hair dryer, said operating conditions including the fan speed level and the operation status of a built-in ionizer.
8. ~~A device~~ hair dryer according to claim 4, wherein said visual display means includes an LCD display screen.

9. A-~~device~~ hair dryer according to claim 5, wherein said visual display means includes an LCD display screen.
10. A-~~device~~ hair dryer according to claim 6, wherein said visual display means includes an LCD display screen.
11. A-~~device~~ hair dryer according to claim 7, wherein said visual display means includes an LCD display screen.
12. A-~~device~~ hair dryer according to claim 1, wherein said non-dissipative scheme includes the turning on and off of said first and second heating elements to operate alternately at different time intervals of the alternating current power supply.
13. A-~~device~~ hair dryer according to claim 12, wherein said non-dissipative scheme includes the turning on and off of said first heating element during positive half-cycles of an ~~alternate~~ alternating power supply.
14. A-~~device~~ hair dryer according to claim 12, wherein said non-dissipative scheme includes the turning on and off of said second heating element during negative half-cycles of an ~~alternate~~ alternating power supply.
15. A-~~device~~ hair dryer according to claim 12, wherein said non-dissipative scheme includes the turning on and off of said first heating element during positive half-cycles of an ~~alternate~~ alternating power supply, and the turning on and off of said second heating element during negative half-cycles of said ~~alternate~~ alternating power supply.
16. A-~~device~~ hair dryer according to claim 12, further comprising a synchronization circuit, said synchronization circuit is arranged to co-operate with said controller

to provide information for controlling the actuation timing of said first and second heating elements, wherein said synchronization circuit and said controller are arranged to mitigate harmonics due to switching of actuation between said first and second heating elements.

17. A ~~device~~ hair dryer according to claim 16, wherein said synchronization circuit and said controller are configured so that said first and second heating elements is actuated at near the zero-crossing point of the ~~alternate~~ alternating current supply.